



Executive Summary

Who wouldn't want a 5-mile commute to Research Triangle Park or any of the other great job opportunities nearby? This prospect is only part of what makes southwest Durham and southeast Chapel Hill a great location. And being a great location is the primary reason why land in this area is the target of development interests.

With this natural interest and growth, however, come challenges. To ensure that the increasing developments and people moving to southwest Durham and southeast Chapel Hill are linked with the rest of the area through proper transportation infrastructure and services, the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) initiated a study of collector streets (shown on Figure 1.1). The study is intended to develop plans and policies that can be adopted and implemented by local governments as land development applications are received.

This study is specific to collector streets and utilizes currently adopted plans as its basis. For example, the plan to build a new arterial – Southwest Durham Drive – connecting Meadowmont Lane with the Farrington Road bridge over I-40 was established as early as 1991 by DCHC in the Regional Transportation Plan and again in the late 1990s when the Meadowmont development was approved by the Town of Chapel Hill. While outside the scope of the collector street plan, the alignment of this arterial was evaluated during the planning process. A large public response indicated significant concern that alternative alignments were not considered for Southwest Durham Drive to avoid connecting with Meadowmont Lane. It is recommended that public concerns be addressed in a follow-up study by DCHC. Another assumption evaluated includes the future of the NC 54 corridor between the interchange at I-40 and the signalized intersection at Meadowmont Lane. The North Carolina Department of Transportation (which is the agency responsible for maintenance of NC 54) is still considering several short-term and long-term options for improving safety and mobility along this important transportation corridor. In addition, there is considerable interest in evaluating the need for an interchange at I-40 and Farrington Road but such an arterial level study is outside the scope of this project.

While specific concerns such as these will inevitably appear during any collector street study, it is imperative to view the collectors within the context of the greater arterial network. The two systems are intended to work together to provide acceptable transportation options to the





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traveling public. Even though they were not focused directly on the collector streets in southwest Durham and southeast Chapel Hill, several broad public policy questions surfaced during the course of the collector street study, including the following:

- a.) Is Southwest Durham Drive still needed?
- b.) If so, is Southwest Durham Drive needed as an arterial or a collector?
- c.) If an arterial, does it still make sense to connect Southwest Durham Drive to Meadowmont Lane or to consider an alternate route to NC 54?
- d.) If signalized intersections are the source of existing motorist delay on NC 54, does it make sense to add more signals, even ones spaced far enough apart to achieve synchronization of green lights?
- e.) Would unsignalized intersections along NC 54 with special median crossovers (called "left-overs") achieve sufficient access to secondary streets, knowing they provide substantial safety and mobility benefits?
- f.) Can an alternate to Farrington Road be identified that would be acceptable to citizens so that the signals at the intersection of Farrington Road and NC 54 can be eliminated, thus providing mobility benefits to motorists on NC 54 and safety benefits to motorists who are vulnerable to rear-end and side-swipe crashes on I-40 as they queue up to exit to NC 54?
- g.) What are the likely impacts and potential benefits of building a partial interchange (ramps to and from the east only) on I-40 at the existing Farrington Road interchange? (This last issue was raised during the collector street study public workshops; a formal response was postponed because the topic was "outside the scope" of the plan, but needs to be provided promptly.)

These questions present important decisions regarding broad public policy issues. Because these issues are critical to being able to develop plans and policies that can be adopted and implemented by local governments – it is recommended that DCHC initiate a process to address these issues, perhaps through a single study, as soon as practicable.

Following the adoption of this collector street plan, local governments will have the opportunity to make sure that an interconnected system of collector streets is built incrementally as development occurs. This strategy has the added advantage of timing the transportation infrastructure so that it coincides with the creation of transportation demand. This collector street plan recommends specific connections





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be made to improve connectivity and congestion. *It is important to note that the maps in this plan address potential connections but do not reflect the exact location or alignment of a proposed facility. The exact location will be decided during the development review process based on development design, traffic impacts and environmental factors.*

The following document addresses the existing conditions, public involvement, recommended network development, and design considerations that were used during this planning process. The document also provides general policy recommendations and an action plan to assist local decision makers and planning staff in the implementation of the *Southwest Durham County and Southeast Chapel Hill Collector Street Plan*. As shown in the collector street plan, an interconnected network of well designed collector streets can help develop safe, attractive, pedestrian-friendly neighborhoods — a worthwhile goal for any great location.

